CLAIMS

What is claimed is:

1   1.   A method comprising:

2   capturing an image;

3   determining if the image has changed, and if the image has changed,

4   sending the image to a server; and

5   if the image has not changed with a period, sending a heartbeat to indicate

6   continued functionality.

1   2.   The method of claim 1, wherein determining if the image has

2   changed comprises detecting motion in the image.

1   3.   The method of claim 1, wherein sending a heartbeat is smaller, and

2   thus uses less bandwidth than sending an image.

1   4.   The method of claim 3, wherein the heartbeat comprises a

2   compressed version of the unchanged image, including a time stamp.

1   5.   The method of claim 3, wherein the heartbeat comprises a time

2   stamp.

1   6.   The method of claim 3, wherein the heartbeat is a single bit.

1   7.   An apparatus comprising:

2   a camera for obtaining images;

3   an interface to send a new image if the new image is different from the old

4   image; and

5   a heartbeat logic to send a heartbeat signal, if the new image has not been

6   different from the old image in a period of time.

1   8.   The apparatus of claim 7, further comprising:

2   a motion detector to compare the new image with the old image, and

3   determine if the new image is different from the old image.

1   9.   The apparatus of claim 7, wherein the camera periodically obtains a

2   new image.

1   10.   The apparatus of claim 7, further comprising a timer, the timer

2   reset every time the interface send a new image, and the timer indicating to the

3   heartbeat logic to send the heartbeat signal, if the timer reaches a value.

1   11.   The apparatus of claim 1, wherein sending a heartbeat is smaller,

2   and thus uses less bandwidth than sending an image.

1   12.   The apparatus of claim 11, wherein the heartbeat comprises a

2   compressed version of the unchanged image, including a time stamp.

1   13.   The apparatus of claim 11, wherein the heartbeat comprises a time

2   stamp.

1   14.   A method of obtaining images and a status of a camera, the method

2   comprising:

3   sending a new image, if the new image is different from an old image; and

4   sending a heartbeat, if the new image is not different from the old image.

1   15.   The method of claim 14, wherein the new image is send

2   periodically at a first rate, and the heartbeat is sent periodically at a second rate.

1   16.   The method of claim 15, wherein the heartbeat is sent only if a

2 ~~series of new images were the same as the old images.~~

1   17.   The method of claim 14, further comprising:

2   using a first timer to periodically send the new images; and

3   using a second timer, to send the heartbeat, if no new images were sent

4 within a period.

1   ~~18.   The method of claim 17, further comprising resetting the second~~

2 ~~timer when the new image is sent.~~

1   19.   A system of providing images to a user, the system comprising:

2   a plurality of cameras for periodically obtaining images;

3   a camera control system to collect images from the plurality of cameras,

4 the camera control system including:

5   a comparison logic to determine whether a new image

6   obtained by a camera is different from an old image obtained by

7   the camera;

8   a heartbeat logic to generate a heartbeat signal, if the new

9   image has not been different from the old image in a period of time;

10   and

11   an interface to send the new images that are different from

12   old images through a network;

13   a server to receive the images from the camera control system and server

14 them to the user.

1   20.   The system of claim 19, wherein the interface further sends a

2 heartbeat for those cameras that have not had an image sent in a previous set of

3 cycles.

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